

X.—Notice on *Balantium*, a genus of the *Pteropodous Mollusca*; with the characters of a new species inhabiting the Southern Indian Ocean.
By W. H. BENSON, Esq. B. C. S.

In Vol. iv. J. A. S., page 176, I enumerated the genera of *Pteropoda* met with in my voyage from England, and noticed, under No. 11, a new perforate genus allied to *Cleodora*, which I marked as very rare, in consequence of the specimen which fell to my net having been the only one seen during the passage.

On looking over the plates of *Lamarckian* genera of *Testacea* given in the old series of the *London Quarterly Journal of Science*, Vol. XV. I met with a figure, No. 107, Plate VII., which bore a very near resemblance to the shell from which I intended to draw the characters of a new genus; and on reference to the letter-press, page 220, I found a note which had theretofore escaped my notice, containing the characters of the genus *Balantium*, which the anonymous translator proposed to establish in order to receive a shell taken by Mr. CRANCH, in Captain TUCKER'S expedition to the *Congo*, and preserved with another shell, apparently of the same genus, in the British Museum. The writer assigned the shell provisionally to the family of *Hyalæana*, merely from the strong analogy which the substance of the shell bore to that of *Hyalæa*, until an opportunity should occur of obtaining more accurate information regarding a species so interesting. That opportunity has partly occurred to me, and I am enabled, by the discovery of a second allied species, to confirm, from an inspection of the animal, the correctness of the writer's conjecture regarding the location of the genus in the order *Pteropoda*. The following is the description of *Balantium recurvum*, as given in *Brande's Journal*.

“Shell transparent, very thin and fragile, hyaline, corneous, hastiform: apex recurved; open at both ends; superior aperture dilated, sharp-edged; inferior round, very minute; *sides acute*; superior disk undulated; inferior rounded; numerous transverse grooves on both sides.”

The new species differs from the description in having no recurved termination to the shell, or at least the bend is so inconspicuous, as to be of no value as a character; the terminal aperture is also larger in proportion, being, in my specimen, nearly 0.05 of an inch in diameter. It has on one face three radiating longitudinal ribs, (one central and broadest, and two lateral.) The lateral margins are more regular than in *B. recurvum*, are destitute of the grooves which cross the shell transversely, and are provided with a groove running the whole length of their truncated edge, whence it happens

that they are bicarinate, instead of presenting a single edge or keel. The other face has only one broad central elevation, which expands gradually, and in proportion to the increase in width of the shell, towards the superior aperture. My shell is shorter in proportion than *B. recurvum*. I propose to describe it as

BALANTIUM BICARINATUM.

Testa compressâ sub-triangulari hastiformi, faciebus utrisque transverse sulcatis, superiori triradiatâ, radiis convexis, approximatis ad marginem superiorem provectum undulas tres formantibus; facie inferiore medio convexâ, abbreviatâ; marginibus lateralibus lævibus unisulcatis, sub-bicarinatis.

Long. 0.65, Lat. 0.5 poll.

Habitat in Oceano Indico Australi, non procul ab insulis Amsterdam et Sancti Pauli dictis.

I took the shell on the night of the 28th November, 1834, in S. lat. $36^{\circ} 30'$, and E. long. $75^{\circ} 30'$, in company with *Janthina exigua* and another small flat spired species, *Cleodoræ*, *Hyalæa*, a small *Cephalopode* of the genus *Cranchia*, an independent floating *Anatifera*, and a crustaceous marine *Centipede*. With the exception of a protrusion of a small portion of the *Molluscum* at the apex, the animal was very similar to that of *Cleodora*, but having been crowded with too many specimens in spirits of insufficient strength, it decayed, and was no longer recognizable, when I had an opportunity of substituting a stronger preservative liquor.

I observe that DE FERUSSAC, in his enumeration of the species of *Pteropoda*, contained in No. 262 of the *Bulletin des Sciences*, has referred *B. recurvum* to the genus *Cleodora*, as *C. Balantium*. As the only habitat given by him is *Congo*, it is evident that he was possessed of no information in addition to that contained in the *Journal of Science*, and that he had arbitrarily assumed the specimen to be defective in the apex. The discovery of another species with a similarly perforated extremity, and a like flattened form, should cause us to hesitate before blotting out the genus indicated by the writer in the *Journal of the Royal Institution*. Nothing but the discovery of an imperforate specimen should now permit its annexation to *Cleodora*, between which and *Hyalæa* it appears to supply a void. The parts of Pelagian shells which are most subject to injury are the delicate edges of the apertures, not the imperforate apices, which even in the tender spinous terminations of the *Cresides* and *Cleodoræ*, are always met with in a perfect state. *Cuvieria* forms no exception to the rule, as, in that genus, the spinous termination is cut off by a diaphragm, and the derelict portion, therefore, follows the ordinary rule observable in

truncated shells. The terminal volute of *Carinuria* is also liable to decadence, but no perforation is visible in the injured part.

I think that the preceding observations will tend to uphold the claim of *Balantium* to rank as one of the prominent types of form, which, for convenience' sake, are termed genera, and that it is desirable that the anonymous institutor of it should claim his property, in order that we may know to whom we should rightly attribute its first indication.

The other species noticed in the *Journal of Science*, as preserved in the British Museum, would appear, from the figure referred to in PARKINSON'S Introduction, to be a *Cleodora* which we met in a tract of the Indian Ocean contained between the parallels of 30° south and 3° north, and the meridians 86° and 92° east; but PARKINSON'S figure does no justice to the form of that truly elegant and delicate shell.

XI.—Additional fragments of the *Sivatherium*.

Before Colonel COLVIN'S departure for Europe, we requested permission to take a cast of the beautifully preserved lower jaw of the *Sivatherium* which he exhibited at the Government House scientific party in January last. In further token of his zeal for science, and of his ever-readiness to oblige, he has, even in the hurry of embarkation, favored us with the accompanying lithographic drawings of the same jaw, and of the larger fragment of the occiput also on its way to adorn some cabinet of fossil osteology in his native land. This fragment is the more valuable on account of its being perfect in the parts deficient in Dr. FALCONER'S specimen published in the *Asiatic Researches*, vol. xix.* We subjoin the Colonel's note explanatory of the drawings, (Plates VIII. IX.)

“ I herewith send you two plates of the *Sivatherium*, one of the portion of the head I was fortunate in having brought in from the lower hills below and west of *Náhan* just before I left *Dádúpur*. It arrived encumbered with a good deal of hard sandstone matrix, most of which I had cleared away. This specimen is valuable, though it has no teeth, from having the occiput very entire, and from its proving the accuracy of Dr. FALCONER'S assumption, founded on examination of the original head, that the animal had four horns with bony cores, as this has the offset of one of the back branched horns very clearly marked; suitable to which I may mention that Captain CAUTLEY has found in his collection a large flat horn. In this Plate, *fig. 1*

* See *Journal Asiatic Society*, vol. v. January.